

ABSTRACT

Earthquake resistant blocks or discrete structures are manufactured using pieces of low quality construction materials such as slag, concrete waste, chipped stone, Sirasu, etc. The pieces are placed in a mold and arranged in the mold so that they are in intimate contact with the mold sides and with each other throughout the mold. Once positioned, mortar or other concrete binding material is poured in to retain the low quality construction materials in contact with each other. When the blocks or discrete structures are placed adjacent to each other, such as when constructing arches, they absorb or dissipate the shock and vibration energies by having the sides of the blocks, and in particular the low quality materials within the blocks, in firm frictional contact. The amount of concrete used is greatly reduced and local and normally scrap material can be used and recycled.